1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

241 clearing and protects it more or less effectively against the bush-pigs. Until the whole circuit of this fence is completed it is necessary for some people to live temporarily in the garden, where a smoking fire and an occasional shout are sufficient to scare away the intruders. Sometimes a man will lie in wait by moonlight hoping to spear a pig among his taro, which is a dangerous game and results in many casualties. The various traps and snares which are meant for pigs and others spoliators of the garden will be described under Hunting.

There is little to say concerning the harvesting. A woman gathers from time to time enough for her family's immediate wants, and the taro tops will be replanted. There are thus a number of plots at different stages of advancement in every woman's garden. Sometimes, however, when all the gardens of a clan are well stocked, there will be a simultaneous harvesting to furnish forth a feast. The products of the garden are then loaded ostentatiously upon platforms in the village before their final distribution to the guests.

251 [714] Coco-nuts are placed under a tabu when a large feast is pending and, as they fall, are accumulated in long lines on the ground, or else strung to poles set up as a tall pyramid in the centre of the village. In the southern part of the division yams are kept in a *barasi* or yam-house, the actual repository being a small dark attic under the gabled roof, while the lower story, merely a raised platform, is used as a sitting-place. Only two other methods of food-storage are worth mentioning. *Tauga* nuts are strung together on poles and suspended over the house fires, where they become black and dry; and *Puga* nuts are concealed in holes in creeks, where the moving water in the course of several months purges away their poisonous properties.

Hunting

224 262 Although hunting is only a secondary phase of the food quest, the hunter is distinguished by some skill and ingenuity, by a remarkable keenness for meat, and by a very sensible catholicity of taste. Bush-pigs, wallabies—of the bush and of the grass-lands—rats, birds, lizards, frogs, and

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

224 262 snakes are all pursued with eagerness. If any kind of food is debarred it is more often because of some magico-religious tabu than through a feeling of aversion.

224 *Individual Hunting.* When an individual travels in the bush he goes armed with his spear and followed by his dog so as to lose no opportunities. As the floods are subsiding the villagers will prowl about, a man and his wife together, with a fair certainty of bagging some small game which has been driven out of its shelter; and if they can do no better the woman will, at least, succeed in catching frogs.

If his dog puts up a bush-pig a man will not hesitate to attack it single-handed. He will even do so in the perilous uncertainty of the moonlight. The strength and fierceness of the bush-boar, with his tusks ground to continual sharpness, make him no mean enemy, and argue considerable pluck on the part of the individual hunter. Even concerted hunts are not without danger. An old man named Tumai relates how, during a pig-drive (while the river Opi was in flood and the pigs more or less cut off), he speared one of these animals as it rushed into the net. The spear broke and the pig, disengaging itself from the net, 'looked about as if to say, who speared me?' Concluding rightly that it was Tumai it turned upon him, ripped first one thigh, then the other, then his chest, then his knee. (The scars remain on the old man's body as proud evidence of his adventure.) It was at this stage that his son came to the rescue, only to be bowled over in his turn. But now Tumai, despite his four wounds, threw himself bodily upon the pig, and the son was enabled to get to his feet and kill it. Such incidents are common enough. There is no denying that the bush-pig is a formidable beast and the Orokaiva a fearless hunter.

Concerted Hunting. There are two principal methods of concerted hunting. One is the drive through the bush towards a pig-net; the other is that of the grass-burning.

[286] 224 773 The pig-net (*wonga*) is strongly made of pandanus fibre. The mesh is about four inches wide; the net stands about four feet high; and each section may be twenty yards long. It is propped up by a series of stakes (*tetere*). Formerly these stakes were the only means of holding up the net, and it was

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

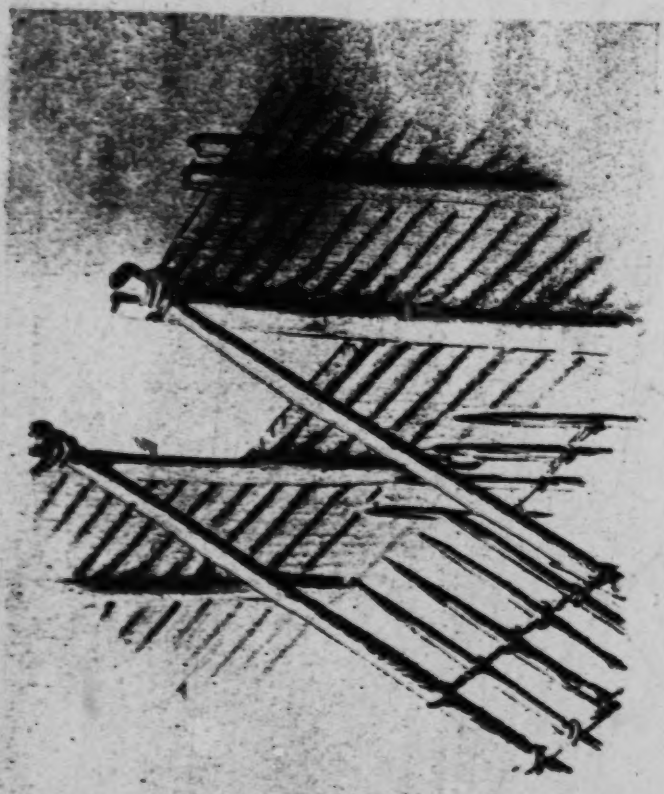
224 frequently charged down by the pig. But once while the 773 hunters were sheltering from the rain a small boy found himself cowering in a hollow tree. He was startled by a cry of *Duve hange, duve hange!* from above his head in the interior of the tree. He ran out terrified and told the men, who proceeded to cut out part of the hollow trunk. As they were doing so a *sowai* or monster came tumbling down and glared round on the hunters. Some were brave enough to threaten him, but he told them to restrain themselves as he was about to make them a present. With that he dragged down interminable lengths of rope from the interior of the tree, and passing them through the meshes of the pig-net above and below, made them fast at either end to strong stakes. The rope is called *duve* and the stakes *hange*, and since that time both have been used with satisfactory result. A similar but 224 lighter net is used for wallabies. With either the method of procedure is the same. Beaters (*dogo*) advance with loud halloos, and the pig fleeing before them charges into the net, where he is speared by the *mongo-embo*, or netsmen. A number of privately-owned nets are stretched end to end, and the quarry belongs to the owner of that particular net in which it is caught.

Annually towards the end of the South-East season the tracts of grass-land are burnt off. The weather is hot and dry and the grass burns furiously, only to spring up afterwards with renewed vigour. The grass tracts are owned by individual clans, but at this season there will assemble large hunting parties composed of many clans and villages.

At one hunt which I attended there were some sixty people, including a number of women. They assembled from various quarters at one village and left for the scene of the hunt, at about 9 a.m., so as to commence operations in the heat of noon. After a walk of about seven miles they rested in a small village and arranged their campaign. Four firing-parties split off and made their way as quietly as possible to four positions on the edge of the selected grass patch. The remainder distributed themselves around the patch. The men of the firing-parties work in pairs. One goes in front and, holding his spear horizontally, thus

1:Williams E.G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

224



Kowbu Bags or Pig Trap
PLATE X

[facing p. 46]

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

224 presses down the grass and forms a path; meanwhile his companion behind him applies the torch to the inner edge of the path. They move as swiftly as they can and the four parties endeavour to set their fires going simultaneously. Thus the retreat of the pig, which is presumably somewhere in the centre of the patch, is largely cut off by the flames. The burning strips are extended, and the hunters move forward close behind them like troops under a barrage. The heat is almost intolerable. The tufts are left red-hot and crackling, and the sparks are still flying. It is almost incredible that bare feet should endure it, but the hunters press on with their spears poised for any quarry that may turn and break through the flames.

But mistakes occur. Too much noise in preparation may warn the pig to make good his escape; or the fires may be ill-timed. On the occasion here described the total bag (when I left late in the afternoon) consisted, as far as I know, of no more than three bush-rats. But the party remained, and subsequently caught many more, with the aid of their dogs, who ferret among the gradually cooling debris of leaves and fallen branches around the edge of the grass-patch, and bring out lizards, rats, and such small deer, alive or already scorched to death.

Traps and Snares. Several traps and snares are in common use throughout the whole of the Orokaiva country. The log-trap (*bage*; Binandele *wau*) consists of two parallel fences (*a*) some eighteen inches apart, made of upright stakes with a weight of heavy logs between them (*b*) held up by a lever (*c*). This lever rests on a fulcrum (*d*), formed by a strong forked stick leaning against one of the fences. The lever is held in position by a line. To this line is attached a short peg (*e*) which, being passed round the base of the fulcrum, is made to meet the trigger (*f*) (*bage-bi*) end to end at the point (*x*). The other extremity of this light trigger bears upon one of the stakes of the fence on the opposite side. If the adjustment at (*x*) is made carefully the trap is set, the string is kept taut and the lever holds the logs in position. But along the ground between the fences and underneath the *bage-bi* there lies a split palm-trunk, which

1: Williams E, G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

224 constitutes the bait. The wild pig roots at the pith of the palm-trunk (*g*), enters between the two fences, and made heedless of its suspicious surroundings by its enjoyment of the palm-pith, pushes on until with a vigorous jerk of its

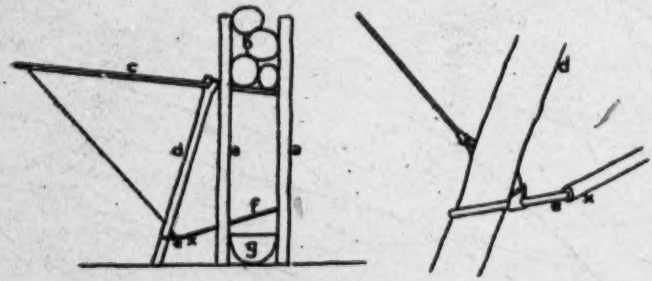


FIG. 2. *Bage* or Pig Trap.

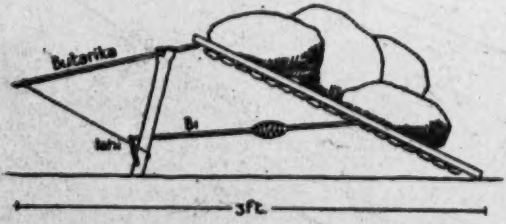


FIG. 3. Rat Trap.

snout it disturbs the *bage-bi*, and breaks the all-important contact at (*x*). Then in one instant the peg flies, the lever is released, and the weight of logs is home on the pig's back. The animal is either killed outright or effectually imprisoned.

The *bage* is sometimes made to lead off from a gap purposely left in the garden fence, and in this case the bait consists not of a palm-log, but merely of the temptation to enter the garden. The *bage-bi* will be then attached to a small sloping platform or ramp over which the pig must pass in order to enter the garden, so that its weight will serve to set the mechanism in motion. Rat traps are made on precisely the same lines but in miniature. A variant form is shown in Fig. 3. Here a small tilted platform of sticks is weighted with stones and left under the house as a rat-trap, or else

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

224

A Rat Trap
PLATE XI

[facing p. 48]

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

224 in the bush, as a snare for small ground birds. The bait is attached firmly to the *bage-bi*. These miniatures are often in the nature of toys rather than serious contrivances.

The pit-trap (*boto*) is common in all parts of the Division. It is placed where bush-pigs are known to pass, and a roughly camouflaged fence, some 30 or 40 yards long, will guide the pig to the fatal spot, viz. a gap in the centre where the pit is dug and concealed with leaves, twigs, and earth. It is about 6 feet deep and the bottom bristles with spikes of hardwood or old spear-points. The pig is not driven, and the only means other than the fence of inveigling it to the pit is the magical one of ginger-root or pig-medicine hidden close by. The *boto* is not without danger to dogs and wandering children, and a number of recent casualties have compelled the magistrate to place restrictions on its use.

The pit is sometimes dug on the inner side of the garden fence opposite an intentional gap. Another kind of trap is similarly placed but consists simply of an array of sharpened stakes set in the ground. It is calculated that the pig, leaping over, will land among the points and be stuck through some vital organ, say the liver; so that in Wasida this device was given the expressive name of *kombu-bage*, or 'liver-trap'.

The miniature pit-trap called *oivo* may be mentioned in passing. It is a shallow hole set with small spikes and covered with leaves. Placed in the garden it was a protection against thieves, and, in the environs of the village, against night-walking sorcerers. I was told that *inja*, or sorcerer's medicine, might be placed on the points to make it something more than a mere burglar-alarm. Several instances of accidental stumbling into the *oivo* were recounted to me, but none in which a real culprit met with his deserts. It appears that one really guilty would lie low in the endeavour to conceal the injuries that proved his guilt. Nowadays, it is said, the *oivo* has gone out of fashion.

An interesting though trivial variety of trap is made by children in rat-infested gardens. A hole is dug with smooth shelving sides, and projecting half-way across it is set a light stick, half-fractured at a point not far from the end. The

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

224 rat ventures out towards the bait and as it passes the point of weakness the stick breaks, and it is thrown into the hole from which there is no escape. (Plate XI).

The springe (*ibive*) is used for wallaby and other small game. It is set either on a track known to be frequented by wallaby or else by a hole in the garden fence, where a wallaby might enter. A strong pole (*butarika*) to which a running noose (*ivasi*) and a light rod (*bi*) are attached is bent down and held in place by a cross-piece (*iabi*) as shown in the diagram. The wallaby disturbs the *iabi*, over which the

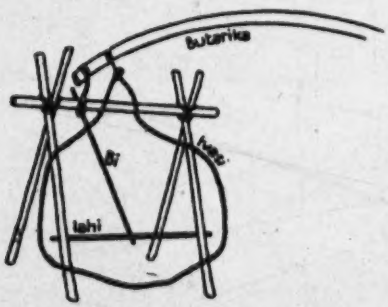


FIG. 4. *Ibive* or Wallaby Trap.

noose is spread, and so releases the spring and is caught. A rather odd transposition of names will be seen by comparing the sketches of the wallaby trap and the rat-trap.

223 [556] *Bird Catching.* Bright feathers, such as those of the common bird of paradise (raggiana), parrots, kingfishers, and numerous small but brilliant varieties, are a definite form of wealth with the Orokaiva, and are preserved with great care. [231] A fledgling may be kept and eventually treated with kindness as a pet, but if a man find a beautiful little bird defending her nest in the hollow of a tree it will not cross his mind to be compassionate. The feathers are too tempting.

The commonest method of catching birds is that of a running noose (*buri* or *ni-sai*) attached to a long line. The noose is spread along the branch of a flowering or fruiting tree which is frequented by bright-plumaged birds, while the snarer, usually a boy, remains in concealment holding

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

his long line. A sudden jerk at the right moment and he has 223
a fluttering captive. It does not occur to him that it would be merciful to kill the bird immediately; he rather enjoys its squeaking and struggling. The bird-snarer is ingenious enough to cover a pool with broad leaves, leaving only a small surface of the water exposed. Close by he sets up a little perch horizontally with his noose spread over it, and then waits till the bird after its bathe will hop on the perch to preen itself.

A large net of loose mesh called *bute* or *goga* is used for catching those birds, such as cockatoos or hornbills, which make their nests in hollow trees. The *bute* may be attached

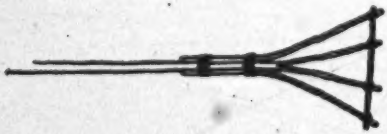


FIG. 5. *Utuba.*

to a handle after the fashion of a butterfly net, and while one man holds it over the hole, another will beat the tree trunk until the bird is scared out and enmeshed. A more primitive method is that of simply knocking a sleeping bird off its perch. For this purpose, I am told, there is a roughly contrived instrument called *utuba*, which resembles a highly magnified 'fly-swat'.

Lastly, there is the sling *Taiba* (see p. 83) with which it is said birds may sometimes be brought down; though if one may judge from the amazing inaccuracy of trial shots, the *taiba* cannot nowadays be very effective.

Miscellaneous Traps, &c. In the Isivita district may be seen 224
an ingenious trap for fruit-bats or flying-foxes. This consists of a small meshed bag, roughly made of bark-string, and of the right size to contain a bread-fruit. Attached to the bag are numerous running nooses, which form a general tangle about it. The fruit-bat noses and claws at the bread-fruit, and is probably awkward enough to get itself caught in one of the nooses.

A second method is that of the *asora*. A bunch of trailers

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

of the climbing palm is tied to a long pole. These trailers are armed with sharp recurved thorns, and the bat-snarer takes his stand beside a banana or pawpaw tree, the scene of the animal's nightly depredations. One sweep of the *asora* at the right moment, and the flapping wings are caught in the hooks.

In the caves near Ioma it is, I believe, only necessary to go in and lay about with a stick and the bats may be slaughtered wholesale. Unappetizing as they seem to ourselves, they are welcome enough as food to a native who is perforce mainly vegetarian.

FIG. 6. Lizard Snare.

The large monitor lizard, besides being eaten, serves another useful purpose in furnishing the skin for the drum. If a native catch sight of one, he will leave whatever he is at in order to give chase. The lizard takes to a tree for refuge and the native hastily improvises the special implement required for the occasion. This is a light pole with a running noose of some fairly stiff material, such as split cane, attached to the extremity, and a hook made by binding on a small stick obliquely. He now climbs the tree after the lizard, hanging his pole by means of the hook to any convenient projection as he ascends. When within range he stretches out to noose his victim, which constantly moves to the far side of the branch on which it has taken refuge, only to be driven round again by sticks, stones, and shouts from those who are standing below. Finally the lizard stands as if mesmerized and permits the noose to be gently slipped over its slowly waving head. It seems bent on going forward to escape and the noose tightens hopelessly round its neck or middle.

Having dealt with various methods of snaring animals and birds from *sus papuensis*, the wild boar, downwards, I may conclude by describing two methods of catching the domestic fly. Incidentally it was almost with surprise, con-

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

sidering the all-devouring taste of the Orokaiva, that one learnt the domestic fly was never eaten. The first of these fly-traps is called *erari* or *barara*. The light midrib of a coco-nut leaflet is bent back at one end and tied so as to form a loop with a handle. This is passed through a number of spiders' webs until the space enclosed within the loop is a thick mesh of cobweb. The little boy with a sore on his leg—and there are too many such—is continually plagued with flies. He dabs at them with his butterfly net of cobweb, and the fly is made a secure prisoner.

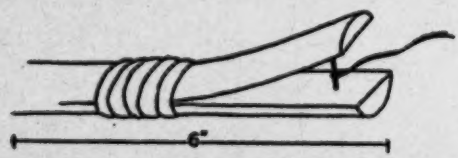


FIG. 7. *Teonda-tabi* or Fly Trap.

The second fly-trap is called *Teonda-tabi*. A piece of sugar-cane is split and bound near the extremity. The two halves, which tend to spring together, are forced apart and kept open by a tiny peg attached to a fine string. The behaviour of the fly and the fly-catcher are obvious, and the device, which is no more than a child's toy, is quite effective.

Fishing

Hand-nets. The commonest kind of fishing contrivance (one which has a wide distribution throughout Papua) is the small hand-net supported on a loop of cane. Among the Orokaiva it is called *eutu* (also *eundu*, *isimbo*, and *angoro*). The mesh is fine and the loop varies in size, but might average 20 inches long by 10 inches wide. It is used as a scoop in creeks and pools, the water having been first diverted by means of a dam and a race, or scooped out with sago branches (*kambo*). This net is used by women.

In Koropata and other villages along the middle course of the Kumusi is found a much larger hand-net called *bute*. The mesh is wider and supported on an elliptical hoop of

1:Williams E,G-5 (1923-1925) 1930
OJ23 Orokaiva OJ23

suppose that the now somewhat garbled songs are in origin hortatory. The exhortation, however, is addressed rather to the taro itself or the spirit (*asisi*) of the taro, and I have no definite instance in which the song is addressed to the *sovai*. But the definite instances are not wanting elsewhere. We need go no further than the grave-side address, to which reference has been made so often, where the *sovai* is requested to send pigs to the hunters and prosper the gardens. Again, apart from the ritual *kasamba*, the Taro Cult provides examples of what we may call genuine prayer, when the Taro man in the act of planting calls on the *sovai* of his mother, father, and grandfather to make his taro flourish.

But the most interesting examples are perhaps those connected with hunting. The Aiga villager says that the new moon is the time to set up his *bage*, or pig-trap, and then after dusk he will cry, *sostenuto*, into the darkness of the bush:

Hariga, Hoindapa, Bavari . . . &c.
Moon, Hoindapa, Bavari . . .
Bage etenavara, Hambuto batijo araikai.
A trap I have set, go, leap on it and break it.

How the moon comes into the prayer I cannot say, for there is nothing in the least resembling a moon cult among the Orokaiva; but the names Hoindapa, Bavari, and the string of place-names that follow are of *sovai-ta-na*, and it is explained that the prayer is addressed to the spirits of the dead who inhabit them. The ensuing words are of course addressed to the pig, telling it to enter the trap to its destruction, and they are no more than an elementary spell in which the hunter utters in words what he wants to happen in fact.

Mr. Flint gives the following account of the same practice as carried out by a hunting party. One of their number is requested to hail the spirits.

'He does so by tapping his throat lightly, and warbling simultaneously. Having aroused the spirits, he calls out vociferously, "We come with our dogs or nets, you send plenty of pigs straight to us." As I was very interested in this alleged communication, I asked my informants if the spirits listened to their talk. I was informed, "Oh, yes, if he did not listen, we would catch no pigs".'[1]

[1] *Annual Report*, 1924–5, p. 48.

2: Williams E, G-5 (1923-1925) 1928
OJ23 Orokaiva OJ23

illuminated to its depths by a broad shaft of sunshine, no more charming stream could be imagined than the upper Opi in dry weather. But if overnight the thunder has been very loud in the hills, the next morning may see the Opi a brown swirling flood, bearing along uprooted trees and piling them one upon another against every obstacle. It will soon overflow its deep banks, and the surrounding bush is submerged and impassable. One may be astonished, passing along a dry track some few days after such a flood, to find a raft or canoe left high and dry among the trees, or to see, head-high on the trunks and leaves, traces of mud left by the last inundation.

The water will subside rapidly with very little damage done. The occasional flood is rather welcomed than feared, for it is the hunter's opportunity. The small game of the forest—rats, hedgehogs, the little marsupial called *Aisi*—are driven from their shelters and are easy prey for the native dogs. There are shallow depressions and hollows which in flood-time become water-courses, and in these men and women are using their scoop-nets or setting their cage-like traps for the insignificant fish which are making their way back to the river with the falling water. Last and least there are the frogs who 'come down from the trees' in the flood-time, to be finally caught in the hands of the women. Sometimes the flood does some damage in the garden; but the water rises and falls so quickly and withal so steadily that it does little actual violence, and the taro seems quite able to survive a submergence. On the whole we are prone to over-estimate the ill effects of the flood in this district.

A far more serious affliction is the occasional drought. After a long spell of fine weather the garden ground becomes dry and hard; the taro leaves droop and the young shoots die off. Even the swamps subside and sago-making is made difficult by lack of water. The hunting of small game and the fishing in creeks are hindered. The result of all this may be a real scarcity. To eke out their supplies the people will have recourse to fern fronds,

2: Williams E, G-5 (1923-1925) 1928
OJ23 Orokaiva OJ23

edible leaves, and roots gathered in the bush, and will fall back on sago, which is plentiful by the coast but rare in the interior. Though there is sometimes scarcity and a certain amount of hardship, these are never, I believe, very prolonged; and they never approach to genuine famine.

Dry weather, like wet weather, may, when it is inconvenient, be ascribed to the machinations of a sorcerer. If a man go a journey and be overtaken by torrents of rain which compel him to build a bush shelter and wait, he is likely to say, 'My enemy so-and-so must have done this; he knew I wished to travel.' So when the fine weather lasts so long as to become a plague, people will bethink themselves of some sinister old man and say, 'he has made sun medicine and is keeping the bamboo "bottle" in the heat over his fire.' The people of 'Wire Rope' on the river Kumusi had a singular reputation (which they were perhaps careful to maintain) for sun-magic. There are many rain-makers and many methods of rain-making. Where the dry weather is a mere whim of Nature's, they will avail; where it is the result of sorcery, they can do nothing. At any rate the long dry spell is unwelcome weather to the Orokaiva.

Before proceeding to the principal occupation and support of the people, viz. gardening, one may dismiss with a brief mention the other phases of the food quest.

As hunters the Orokaiva are always opportunists. No man travels through the real bush without his spears and his dog, if he possess one. He is extraordinarily alert to detect his game, be it bush-pig, rat, or lizard, and will spare himself no trouble to capture the most insignificant quarry. Communally he hunts with the long net, into which the pig or wallaby is driven through the bush by a semicircle of beaters, while some stand ready behind the net with their spears. The grass plains are burnt off yearly, and yield a variety of game, from pigs and pythons to ground-rats.

The common hunting-traps are (1) *Bagi*, in which the unsuspicious pig, nosing at his bait of sago pith, releases

2: Williams E, G-5 (1923-1925) 1928
OJ23 Orokaiva OJ23

224 a trigger and lever and brings down a weight of logs on his back; (2) *Hoto*, a concealed pit, the bottom of which is abristle with spear-points; and (3) *Kombu bagi*, a close array of sloping spear-points on the inner side of a gap in the garden fence, so called because the pig, having leapt unwarily through the gap, finds himself transfixed through the *kombu*, or liver. There is an ingenious trap known as *Ibive* for small wallabies, consisting of a noose, a sapling bent to the ground, and a trigger. The trigger is released, the sapling springs upright, and the wallaby is, or ought to be, dangling in the noose. There are many other interesting methods which cannot [267] be described here of catching cuscus, bats, rats, birds, and lizards, all such creatures being held at their proper value as diet by the Orokaiva.

231 The native is of course a pig-keeper, and one who is constantly obtaining fresh recruits for domestication in 262 the shape of captive sucking-pigs from the bush. But pigs are meant for feasts and ceremonies; there is no regular supply of butcher's meat. When all is said and done, meat food is to the Orokaiva, like many another keen hunter, rather a dainty than a diet.

227 In fishing there is some variety of methods. The inland people rely mainly on various forms of scoop-nets which are used in shallow creeks. They also poison fish with the plant known as 'New Guinea Dynamite'. The river people use in addition a kind of stationary trap called *sirava*, and the coast dwellers, besides all these, have the common triangular hand-net *yako* and a drag-net *komboru*. In fishing, as in hunting, there are many other contrivances which cannot be dealt with here. On the whole (except in the case of the coastal people) it is of minor importance as a means of subsistence.

262 Another resource of much greater importance is sago. The river people, i.e. principally the Binandele, who live along the lower reaches of the Gira, Mambare, and Kumusi, have almost inexhaustible supplies to draw upon; and, except among the bush dwellers in the south-

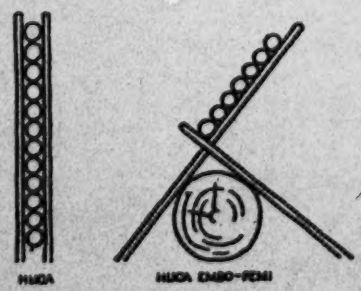
2: Williams E, G-5 (1923-1925) 1928
OJ23 Orokaiva OJ23

often well advanced before the circle is complete. The actual building of the fence is men's work, though women carry timber. The reason why women do not build is, I am told, that the fence would be no good.[1]

The several varieties of pig-trap have been mentioned before (pp. 113–14). They are commonly built just within the garden fence so that the raiders are not only frustrated but captured. Until the fence is completed some people must live in the garden houses to scare away the pigs with their voices. It is said also that the smell of smoke will make them suspicious and keep them off, and one may sometimes see a large fire piled with green leaves and kindled towards evening. On moonlight nights men will wait with spears on the garden platforms and attack the pig among the taro—a really hazardous undertaking, and one which is responsible for many terrible casualties. Nowadays the villagers will often beseech the loan of one's shot-gun and shooting boy on a moonlight evening.

Some well-advanced gardens become infested with rat-like marsupials. There are miniature traps for them—constructed on the principle of the pig-trap with a falling weight—and another ingenious kind of pitfall, which, like the former, is rather a plaything of little boys than a serious business of the gardener. The pitfall is a round hole with steep or shelving sides; from the edge towards the centre there projects a piece of wood, with what may be called a green-stick fracture; on the tip of this little platform is placed the bait. The rat climbs out

[1] The ordinary fence (*Huga*) consists of a series of horizontal rails laid one atop of the other and between uprights at frequent intervals. There is another kind, *Huga-Embo-peni* (possibly the 'big man' or 'elder man' fence), where advantage is taken of a large tree-trunk, and the fence made to slope across it. Two cross-sections are shown:



2: Williams E, G-5 (1923-1925) 1928
OJ23 Orokaiva OJ23

241 towards the bait, passes the fatal point of weakness, and,
224 as the stick breaks under his weight, falls into the abysm.

241 A more serious nuisance to the gardener is the flying
224 fox (*dipere*), a very destructive creature whose favourite
136 foods are bananas, papaw, and bread-fruit. In certain parts, their daylight camping grounds, one may see flocks of them hanging in dense clusters from the high branches, or circling slowly round to settle again and renew their slumbers. In the Isivita district may be found a kind of snare for the flying foxes suspended in a high tree. It takes the form of a roughly knitted bag, just large enough to hold a bread-fruit. To this bag are attached a number of running nooses, say six or seven inches long, which form a confused tangle all around it. The bat attacks the bread-fruit in its clumsy fashion; to reach the fruit it can hardly avoid slipping its head into a noose, and then, trying to get clear, hangs itself. Another contrivance, somewhat devilish, was seen at Wasida. The cane palms have trailing branches with cruel recurved thorns which have a way of tearing your shirt or sweeping your hat off as you pass by in the bush. A cluster of these slender trailers is tied in a bunch to a stick, much after the manner of a witch's broom, and the villager stands in the darkness by his banana tree, the witch's broom or *asora* held close to the bunch of fruit. When the flying fox settles, flapping noisily on the bananas, one swift jerk of the *asora* brings him down, with the grappling hooks in the delicate membranes of his wings.

241 The only bird which does much harm to the natives
223 is the white cockatoo, who plays havoc with young
136 coco-nuts. In some villages long cables of rattan cane are attached to the tops of the coco-nut palms, sometimes with hollow shells of the cycad *Puga* for rattles. Sometimes the native will aim a stone with his sling. But as the cockatoo is a bold bird and the native an easy-going man, the young coco-nuts for the most part continue to be gnawed.

241 There is yet another garden pest—the dishonest neigh-
674